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Additions to the "Synopsis of N. Am. MUTILLIDÆ."

BY CHAS. A. BLAKE.

Since the publication of the "Synopsis" (Trans. vol. iii, pp. 217—265), I have had the opportunity of examining a small but interesting collection of Mutillæ from Texas, containing several new species, and varieties of some already known. A list of the species will be given below, with descriptions of such as appear to be new.

I have also had the unexpected pleasure of seeing a copy of "D'une Monographie des Mutilles de l'ancien Continent, by M. O. Radoszkovsky," a handsome and exhaustive work, published in St. Petersburg, in 1870, in which he has adopted a somewhat similar classification to that given in my "Synopsis." He also attaches some importance to the form of the ventral carina of the basal abdominal segment. Not having examined a sufficiently large series of individuals, I have been unable to determine its value as a specific character.

Genus **MUTILLA**, Linn.Subgenus **MUTILLA**, Blake.*DIVISION I.***Mutilla Grotei**, Blake, Synopsis, p. 228.

One ♂ specimen from Bosque Co. (Belfrage.)

Mutilla Promethea, Blake, Synopsis, p. 229.

Two ♂ specimens from Dallas Co. (Boll.)

Mutilla Sayi, Blake, Synopsis, p. 229.

One ♂ specimen from Bosque Co.

Mutilla ornativentris, Cress.—Synopsis, p. 230.

Four ♀ specimens. One very fine specimen from Bosque Co. measures 6 lines in length.

Subgenus **SPHÆROPTALMA**, Blake.*DIVISION I.—Subdivision I.***Mutilla pennsylvanica**, St. Farg.—Synopsis, p. 233.

Two ♂ specimens from Dallas Co.

*Subdivision II.***Mutilla Orcus**, Cress.—Synopsis, p. 233.

Two ♂ ♀ specimens from Dallas Co. have the clothing of the abdomen coccineo-ferruginous instead of fulvous.

Mutilla Gorgon, Blake, Synopsis, p. 233.

Three ♀ specimens from Dallas Co. One specimen measures only 5 lines in length.

Mutilla Zelaya, Blake, Synopsis, p. 234.

One ♂ specimen from Bosque Co.

Mutilla Clotho, n. sp.

♀.—Black; head subquadrate, posterior angles rounded, not as wide as the thorax, densely rugose, clothed with black pubescence, cheeks below the eyes closely and irregularly punctured; eyes round, prominent; scape of antennæ punctured, black, flagellum piceous. Thorax robust, ovate, narrowed posteriorly, densely clothed above with black pubescence, sides closely punctured, mesothorax armed posteriorly with a small tubercle on each side, metathorax abruptly truncate, closely punctured. Legs black, clothed with black hairs, intermediate and posterior tibiæ armed with long spines. Abdomen ovate, basal segment closely punctured, clothed with long erect black hairs, second segment having a broad band of reddish golden pubescence, emarginate anteriorly and posteriorly, divided by a narrow central longitudinal line of black, base and apical margin black, third and fourth black, apical segment clothed with reddish golden pubescence. Under side black, closely punctured, sparsely clothed with black hairs, margins of all the segments fringed with long black pubescence. Length 10 lines.

One specimen from Dallas Co. This fine species is allied to *comanche*. It differs from the latter in having the head less rounded, and the thorax somewhat longer, the clothing is also less coarse than in *comanche*. It also resembles *occidentalis* in the ornamentation of the abdomen, but the head and thorax are entirely black.

Mutilla Leda, n. sp.

♀.—Black; head subquadrate, posterior angles rounded, wider than the thorax, densely punctured, thinly clothed with scattered golden hairs. Antennæ fuscous; eyes small, round; mandibles ferruginous at base, black at tips. Thorax short, ovate, thinly clothed with obscure golden pubescence, sides coarsely reticulate, metathorax abruptly truncate. Legs black, clothed with black hairs, intermediate and posterior tibiæ armed with long spines. Abdomen ovate, clothed above with coarse golden pubescence. Underside covered with coarse confluent punctures, margins of the segments fringed with black hair. Length $6\frac{1}{2}$ lines.

One specimen from Dallas Co. Closely resembles *aureola*, Cress.

Mutilla Chiron, n. sp.

♂.—Black; head not as wide as the thorax, clothed with long black pubescence; antennæ black; eyes small, round, prominent. Thorax short, ovate, clothed with long black pubescence; metathorax coarsely reticulate. Wings moderate, fuliginous, three submarginal cells, the marginal cell truncate at tip, first submarginal large, second small, subtriangular, its basal and apical nervures sinuate, receiving the first recurrent nervure near the base; third submarginal larger, slightly narrowed beneath, receiving the second recurrent close to its apical nervure. Legs black, clothed with black hairs. Abdomen ovate, petiolate, basal segment coarsely punctured, second closely and finely punctured, clothed with long, erect black pubescence, remaining segments densely clothed with long fulvo-ferruginous pubescence. Underside shining, second segment closely punctured. Length $4\frac{1}{2}$ lines; expanse of wings 6 lines.

Two specimens from Bosque Co. This species is closely allied to *fulvohirta*, Cress., but may be readily distinguished by the clothing of the head and thorax being black, and having the third submarginal cell distinct. One variety has the thorax and apical segment of the abdomen clothed with fulvous pubescence.

Mutilla Ægina, Cress.—Synopsis, p. 235.

Two ♀ specimens from Dallas Co. have the pubescence paler and brighter than those from Colorado; the apical segment of the abdomen is black, as well as the pubescence of the legs.

Mutilla occidentalis, Linn.—Synopsis, p. 236.

Five ♂ ♀ specimens from Dallas Co. Some of the ♀ specimens have the pubescence bright fulvous, with a golden sericeous lustre when viewed obliquely.

Mutilla Creusa, Cress.—Synopsis, p. 236.

Seven ♀ specimens from Dallas Co.

Mutilla bioculata, Cress.—Synopsis, p. 236.

Three ♂ specimens. One specimen from Dallas Co. has the second abdominal segment almost entirely yellow-ferruginous.

Mutilla Castor, Blake, Synopsis, p. 237.

Three ♂ specimens from Dallas Co. This species may be distinguished from *fenestrata* by the basal segment of abdomen being more nodose and *castaneous*, while in the latter species it is invariably black.

Mutilla fenestrata, St. Farg.—Synopsis, p. 238.

Four ♂ specimens from Dallas and Bosque Counties.

Mutilla Creon, n. sp.

♂.—Ferruginous; head round, closely punctured, thinly clothed with erect black hairs; scape of antennæ castaneous, flagellum piceous. Eyes round, prominent. Thorax ovate, densely punctured, sparsely clothed with erect black hairs, metathorax roundly truncate, coarsely reticulate. Wings moderate, fuscous, subhyaline from base to beyond the middle, marginal cell subovate, roundly truncate at tip, three submarginal cells, second subtriangular, receiving the first recurrent nervure at middle, third narrowed beneath, receiving the second recurrent close to its apical nervure. Tegulæ round, tufted posteriorly with pale hairs. Legs black, thinly clothed with whitish hairs. Abdomen ovate, petiolate, basal segment densely punctured, second segment fulvo-ferruginous, darker at base, finely and closely punctured, apical margin black, third, fourth and fifth segments black, clothed with long black pubescence, apical segments with pale yellowish. Ventral segments fringed with pale yellowish hairs, apex with two sharp longitudinal carinæ. Length 5 lines; expanse of wings $6\frac{1}{2}$ lines.

One specimen from Bosque Co.

Mutilla Waco, Blake, Synopsis, p. 238.

One ♀ specimen from Bosque Co.

Mutilla Admetus, n. sp.

♂.—Head and thorax black; the former round, not as wide as thorax, coarsely punctured, thinly clothed with erect hairs, antennæ black; eyes round, prominent. Thorax ovate, narrowed posteriorly, coarsely punctured, metathorax roundly truncate, deeply reticulate. Wings fuliginous, marginal cell short, roundly truncate at tip, second submarginal subtriangular, its basal nervure sinuate, receiving the first recurrent nervure before the middle, third submarginal indistinctly defined. Legs black, thinly clothed with black hairs. Abdomen ovate, petiolate, basal segment black, coarsely punctured, second and following segments dark ferruginous, closely punctured, thinly clothed with erect black hairs, margins of the segments fringed with black pubescence. Length 6 lines; expanse of wings $8\frac{1}{2}$ lines.

One specimen from Comal Co. This may be the ♂ of *Waco*.

Mutilla 4-guttata, Say.—Blake, Synopsis, p. 246.

Three ♀ specimens from Dallas Co., measuring $4\frac{1}{2}$ — $6\frac{1}{2}$ lines in length, one specimen being unusually robust.

Mutilla ferrugata, Fabr.—Blake, Synopsis, p. 246.

Sixteen ♀ specimens of all sizes and varieties.

Mutilla mutata, Blake, Synopsis, p. 247.

One ♀ specimen from Dallas Co.

Mutilla scævola, Blake, Synopsis, p. 247.

One ♀ specimen from Bosque Co.

Mutilla balteola, Blake, Synopsis, p. 248.

One ♀ specimen from Dallas Co.

Mutilla albopilosa, n. sp.

♀.—Ferruginous; head subquadrate, posterior angles rounded, closely and finely punctured; eyes small, round; antennæ fusco-ferruginous; mandibles tipped with black. Thorax subquadrate, narrowed behind, densely punctured, metathorax abruptly truncate. Legs castaneous, clothed with glittering white hairs. Abdomen ovate, second segment, densely and finely punctured, apical segments blackish, fringed with whitish pubescence, underside paler than above. Entire insect clothed with erect white hairs. Length 4 lines.

Hub.—Texas. (Belfrage.) One specimen from Comal Co.

This species closely resembles some individuals of *ferrugata*, but may be readily distinguished by the rather dense white erect pubescence.

DIVISION II.

Mutilla Oceola, Blake, Synopsis, p. 248.

One ♂ specimen from Bosque Co.

Mutilla grandiceps, n. sp.

♂.—Bright ferruginous; head subquadrate, nearly three times as wide as the thorax, hind margin deeply concave, posterior angles produced into acute teeth, finely and closely punctured, cheeks armed posteriorly beneath with a long acute spine; mandibles long, bidentate at the tips which are blackish. Antennæ: scape and two basal joints of flagellum pale ferruginous, remaining

joints fuscous. Eyes small, round. Thorax elongate subquadrate, feebly narrowed at middle, prothorax with a small tubercle on each side, metathorax roundly truncate, reticulate. Wings only rudimentary. Legs castaneous, thinly clothed with whitish hairs, calcaria white. Abdomen elongate ovate, sessile, stained with castaneous, closely and finely punctured, thinly clothed with silvery hairs. Length 3 lines.

♀.—Bright ferruginous; head nearly as large in proportion to the thorax as that of the male. Thorax robust, subquadrate, minutely punctured, sides deeply excavate. Legs castaneous, thinly clothed with glittering hairs, posterior tibiae armed with spines. Abdomen above stained with castaneous, thinly clothed with silvery pubescence. Length $2\frac{1}{2}$ lines.

Two (♂ ♀) specimens from Bosque Co. A very curious little species, in structure allied to *laticeps*, Blake.

Mutilla simillima, Smith.—Synopsis, p. 255.

Three ♀ specimens from Dallas and Bosque Counties.

Mutilla Electra, n. sp.

♀.—Head black, subquadrate, posterior angles rounded, closely punctured, vertex clothed with reddish golden pubescence; eyes round, prominent; scape of antennæ castaneous, flagellum piceous. Mandibles ferruginous at base, black at tips. Thorax ovate, narrowed posteriorly, bright ferruginous, finely punctured, thinly clothed with reddish golden pubescence, bearing on each side two small tubercles, metathorax coarsely rugose on disc, abruptly truncate. Legs black, thinly clothed with glittering white hairs. Abdomen ovate, entirely black above, closely and minutely punctured, thinly clothed with black pubescence. Under side closely and finely punctured, clothed with silvery pubescence, the margins of the second third and fourth segments fringed with silvery pubescence, apex black. Length $4\frac{1}{2}$ to 6 lines.

Two specimens from Dallas Co. Very distinct by the abdomen being entirely black above and clothed with silvery pubescence beneath.

Genus **AGAMA**, Blake.

Agama Aulus, n. sp.

♂.—Uniform dark honey-yellow; thinly clothed with erect white hairs. Head subquadrate, posterior angles rounded, shining, very minutely and distantly punctured; eyes large, round, prominent, ocelli moderate; scape of antennæ honey-yellow, scutellum fuscous; tips and upper edge of mandibles blackish. Thorax elongate subquadrate, rounded in front, pro- and mesothorax finely punctured, the latter with four faintly impressed longitudinal lines, metathorax roundly truncate, broadly and shallowly reticulate. Wings moderate yellowish hyaline, marginal cell large, ovate lanceolate, first submarginal cell narrow, second subquadrate, pointed towards base, its basal nervure sinuate, third, subobsolete. Stigma fuscous, its apical two-thirds lying within the marginal cell. Tegulae round, polished, honey-yellow. Legs fuscous, thinly clothed with whitish hairs. Abdomen elongate-ovate, petiole pyriform, its ventral carina terminating anteriorly in an obtuse tooth, second segment shining, minutely and distantly punctured, apical margins of all the segments fringed with white pubescence. Length 5 lines; expanse of wings $8\frac{1}{2}$ lines.

Hab.—Texas. (Belfrage.)

Agama minuta, n. sp.

♂.—Uniform dark honey-yellow; head round, shining, minutely punctured; eyes large, prominent; antennæ pale fuscous. Thorax elongate-ovate, closely punctured, metathorax roundly truncate, broadly and feebly reticulate. Wings hyaline, marginal cell ovate, first submarginal large, second small, subtriangular, pointed towards base, receiving the first recurrent nervure at base. Stigma large, pale fuscous, two-thirds within the marginal cell. Tegulæ, round, pale honey-yellow. Legs honey-yellow, thinly clothed with white hairs. Abdomen elongate-ovate, petiole pyriform, the ventral carina terminating in a sharp tooth anteriorly, second segment shining, minutely punctured, apical margins of all the segments thinly fringed with pale pubescence. Length 2 lines; expanse $3\frac{1}{2}$ lines.

Hab.—Texas. (Belfrage.)

Agama juxta, n. sp.

♂.—Uniform dark-brown; thinly clothed with whitish hairs. Head rounded, narrowed posteriorly, finely punctured; eyes large, prominent as well as ocelli. Antennæ pale honey-yellow; mandibles tipped with black. Thorax robust, elongate-ovate, shining, finely punctured, mesothorax with four longitudinal impressed lines, metathorax roundly truncate, broadly reticulate. Wings moderate, yellowish hyaline, marginal cell broadly ovate, first submarginal elongate, second subquadrate, pointed towards base, its basal nervure sinuate. Stigma elongate, its apical three-fourths lying within the marginal cell. Tegulæ round, polished, honey-yellow. Legs pale honey-yellow, thinly clothed with whitish hairs, calcaria fuscous. Abdomen elongate-ovate, petiole subpyriform, second segment shining, feebly and remotely punctured, apical margins of all the segments castaneous, thinly fringed with pale yellowish pubescence. Length $4\frac{1}{2}$ lines; expanse of wings $8\frac{1}{2}$ lines.

Hab.—Texas. (Belfrage.)

Agama attenuata, n. sp.

♂.—Uniform dark honey-yellow; head round, shining, eyes large, prominent antennæ honey-yellow. Thorax elongate-ovate, shining, finely punctured, disc of mesothorax elevated, sides closely punctured; metathorax closely and finely reticulate, gradually roundly truncate. Wings moderate, hyaline, with a faint fuscous cloud in the apical region, marginal cell ovate, truncate at tip, first submarginal large, second very small subtriangular, receiving the second recurrent nervure before the middle. Stigma large, yellowish, lying almost wholly within the marginal cell. Tegulæ minute, pale honey-yellow. Legs pale honey-yellow, thinly clothed with concolorous hairs. Abdomen elongate, petiolate, petiole one-third the length of entire abdomen, pyriform, densely punctured; second segment finely punctured, third castaneous. Entire insect sprinkled with erect whitish hairs. Length 3 lines; expanse of wings 5 lines.

Hab.—Texas. (Belfrage.)

NOTE.—“*Subdivision II.*” should have been inserted on page 233 of the “Synopsis,” immediately before species 21 (*Orcus*), and “*DIVISION II.*” on page 248, immediately before species 77 (*propinqua*). By some unaccountable oversight they were omitted.